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(71) Applicant (for all designated States except US): **ASTEX TECHNOLOGY LIMITED** [GB/GB]; 436 Cambridge Science Park, Milton Road, Cambridge CB4 0QA (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BERDINI, Valerio** [IT/GB]; 436 Cambridge Science Park, Milton Road, Cambridge CB4 0QA (GB). **O'BRIEN, Michael, Alistair** [GB/GB]; 436 Cambridge Science Park, Milton Road, Cambridge CB4 0QA (GB). **CARR, Maria, Grazia**

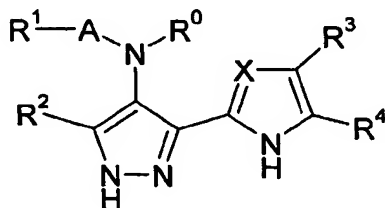
[GB/GB]; 436 Cambridge Science Park, Milton Road, Cambridge CB4 0QA (GB). **EARLY, Theresa, Rachel** [GB/GB]; 436 Cambridge Science Park, Milton Road, Cambridge CB4 0QA (GB). **NAVARRO, Eva, Figueroa** [ES/GB]; 436 Cambridge Science Park, Milton Road, Cambridge CB4 0QA (GB). **GILL, Adrian, Liam** [GB/GB]; 436 Cambridge Science Park, Milton Road, Cambridge CB4 0QA (GB). **HOWARD, Steven** [GB/GB]; 436 Cambridge Science Park, Milton Road, Cambridge CB4 0QA (GB). **TREWARTHA, Gary** [GB/GB]; 436 Cambridge Science Park, Milton Road, Cambridge CB4 0QA (GB). **WOOLFORD, Alison, Jo-Anne** [GB/GB]; 436 Cambridge Science Park, Milton Road, Cambridge CB4 0QA (GB). **WOODHEAD, Andrew, James** [GB/GB]; 436 Cambridge Science Park, Milton Road, Cambridge CB4 0QA (GB). **WYATT, Paul** [GB/GB]; 436 Cambridge Science Park, Milton Road, Cambridge CB4 0QA (GB).

(74) Agent: **HUTCHINS, Michael, Richard**; M.R. Hutchins & Co., 23 Mount Sion, Tunbridge Wells, Kent TN1 1TZ (GB).

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(54) Title: PHARMACEUTICAL COMPOUNDS



(I)

(57) Abstract: The invention provides compounds having activity as inhibitors of cyclin dependent kinases, glycogen synthase kinase-3 and Aurora kinases for use in the treatment of disease states and conditions such as cancer that are mediated by the kinases. The compounds have the general formula (I); wherein X is CR<sup>5</sup> or N; A is a bond or -(CH<sub>2</sub>)<sub>m</sub>-(B)<sub>n</sub>; B is C=O, NR<sup>8</sup>(C=O) or O(C=O) wherein R<sup>8</sup> is hydrogen or C<sub>1-4</sub> hydrocarbyl optionally substituted by hydroxy or C<sub>1-4</sub> alkoxy; m is 0, 1 or 2; n is 0 or 1; R<sup>0</sup> is hydrogen or, together with NR<sup>8</sup> when present, forms a group -(CH<sub>2</sub>)<sub>p</sub> wherein p is 2 to 4; R<sup>1</sup> is hydrogen, a carbocyclic or heterocyclic group having from 3 to 12 ring members, or an optionally substituted C<sub>1-8</sub> hydrocarbyl group; R<sup>2</sup> is hydrogen, halogen, methoxy, or a C<sub>1-4</sub> hydrocarbyl group optionally substituted by halogen, hydroxyl or methoxy; R<sup>3</sup> and R<sup>4</sup> together with the carbon atoms to which they are attached form an optionally substituted fused carbocyclic or heterocyclic ring having from 5 to 7 ring members of which up to 3 can be heteroatoms selected from N, O and S; and R<sup>5</sup> is hydrogen, a group R<sup>2</sup> or a group R<sup>10</sup> wherein R<sup>10</sup> is selected from halogen, hydroxy, trifluoromethyl, cyano, nitro, carboxy, amino, mono- or di-C<sub>1-4</sub> hydrocarbylamino, carbocyclic and heterocyclic groups having from 3 to 12 ring members; a group R<sup>a</sup>-R<sup>b</sup> wherein R<sup>a</sup> is a bond, O, CO, X<sup>1</sup>C(X<sup>2</sup>), C(X<sup>2</sup>)X<sup>1</sup>, X<sup>1</sup>C(X<sup>2</sup>)X<sup>1</sup>, S, SO, SO<sub>2</sub>, NR<sup>c</sup>, SO<sub>2</sub>NR<sup>c</sup> or NR<sup>c</sup>SO<sub>2</sub>; and R<sup>b</sup> is selected from hydrogen, carbocyclic and heterocyclic groups having from 3 to 12 ring members, and a C<sub>1-8</sub> hydrocarbyl group optionally substituted by one or more substituents selected from hydroxy, oxo, halogen, cyano, nitro, carboxy, amino, mono- or di-C<sub>1-4</sub> hydrocarbylamino, carbocyclic and heterocyclic groups having from 3 to 12 ring members and wherein one or more carbon atoms of the C<sub>1-8</sub> hydrocarbyl group may optionally be replaced by O, S, SO, SO<sub>2</sub>, NR<sup>c</sup>, X<sup>1</sup>C(X<sup>2</sup>), C(X<sup>2</sup>)X<sup>1</sup> or X<sup>1</sup>C(X<sup>2</sup>)X<sup>1</sup>; R<sup>c</sup> is selected from hydrogen and C<sub>1-4</sub> hydrocarbyl; and X<sup>1</sup> is O, S or NR<sup>c</sup> and X<sup>2</sup> is =O, =S or =NR<sup>c</sup>. Also included within formula (I) are the salts, solvates and N-oxides of the compounds.



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